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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,358	07/03/2001	Fred A. Fensel	3003-37	1062

21324 7590 04/22/2003
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EXAMINER

WATKINS III, WILLIAM P

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 04/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,358

Applicant(s)

FENSEL ET AL.

Examiner

William P. Watkins III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admissions in the specification in view of Liang et al. (U.S. 5,705,564) further in view of Hayner (U.S. 6,027,557).

Applicant admits that use of polymer modified bitumen in a roofing membrane with a fibrous core; granular top surface and anti-stick bottom surface is old (paragraph 0017). Liang et al. teaches mixing of a polymer modifier with bitumen under vacuum in order to remove air and prevent decomposition of the modifier (col. 9, lines 20-25, col. 10 lines 25-35, 45-50). Hayner teaches the uses of SBS, SIS, SEBS, and SB either alone or in mixtures to modify bitumen (col. 10 lines 50-65, col. 9, 50-55). The instant invention claims the use of vacuum to remove air

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from bitumen mixed with a modifier used in a roofing sheet, and the use of blends of SBS and secondary polymers to modify the bitumen. It would have been obvious to one of ordinary skill in the art to have mixed the modifier of applicant's admission under vacuum in order to prevent decomposition of the modifier because of the teachings of Liang et al. It further would have been obvious to have used a mixture of a secondary polymer in combination with SBS because of the teachings of Hayner that a mixture of polymer modifiers produces an acceptable result.

3. Applicant's arguments filed 05 February 2003 have been considered but are not persuasive.

Applicant argues that Liang et al. teaches a different type of polymer additive than that instantly claimed and disclosed. The instant claim language is open and does not exclude the additive system of Liang et al., which is designed to stabilize other polymer additives such as polyolefins (col. 3, lines 35-50) in bitumen mixtures. The examiner notes that applicant claims polypropylene as an additive, which is a type of polyolefin. Applicant also argues that Hayner teaches an above atmospheric process, which teaches away from the instant vacuum process. The process of Hayner is designed to oxidize an

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asphalt mixture and thus requires air to be introduced into the process. The instant degassing process is disclosed as being able to use an oxidized asphalt (section 00090 of the instant disclosure). Thus the fact that Hayner may introduce air under pressure to form an oxidized asphalt does not teach away from using such an asphalt latter in the process of Liang et al., which teaches either use of vacuum or inert gases to allow higher temperatures in the processing of the additive system of Liang et al. Applicant further argues that there is no appreciation of degassed asphalt as a desirable feature for the advantages given in the instant specification. A combination of references does not have to have the identical motivation of the instant invention as long as there is still motivation to make the instant claimed product by the instant claimed process. There is motivation in Liang et al. to use a vacuum process, which will degas the final product of applicant's admission in view of the cited references as given in the above rejection.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

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action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 703-308-2420. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

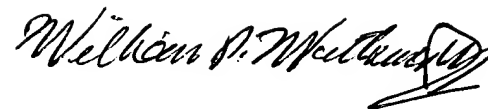
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WW/ww

April 18, 2003

A handwritten signature in cursive script, reading "William P. Watkins III". The signature is written in black ink and is positioned above the printed name.

**WILLIAM P. WATKINS III
PRIMARY EXAMINER**